In the Claims:

1-21. (Canceled)

22. (Currently Amended) A method for the production of soluble **Class I** MHC complexes in a cell pharm having an appropriate growth media therein, comprising the steps of:

-- obtaining gDNA from a sample wherein a portion of the gDNA encodes a desired individual **Class I** MHC heavy chain molecule;

-- creating a PCR product encoding a soluble form of the desired **Class I** MHC heavy chain molecule by PCR amplification of the gDNA, wherein the amplification utilizes at least one locus-specific primer having a stop codon incorporated into a 3' primer thereby resulting in a PCR product that does not encode the cytoplasmic and transmembrane domains of the desired **Class I** MHC heavy chain molecule, thereby producing a PCR product that encodes a soluble **Class I** MHC heavy chain molecule;

-- inserting the PCR product into a mammalian expression vector to form a plasmid containing the PCR product encoding the soluble **Class I** MHC heavy chain molecule;

-- electroporating the plasmid containing the PCR product into at least one suitable host cell; and

-- inoculating the cell pharm with the at least one suitable host cell containing the plasmid such that the cell pharm produces soluble **Class I** MHC complexes having the desired **Class I** MHC heavy chain molecule associated with ~~native~~ beta-2-microglobulin and loaded with endogenously produced peptides**, wherein the beta-2-microglobulin is native to and endogenously produced in the host cell**.

23. (Currently Amended) The method according to claim 22, further comprising the step of harvesting the soluble **Class I** MHC complexes from the cell pharm.

24. (Currently Amended) The method according to claim 22, wherein the soluble **Class I** MHC complexes are Class I HLA molecules ~~or Class II HLA molecules~~.

25. (Previously Presented) The method according to claim 22, wherein the gDNA is obtained from blood, saliva, hair, semen, or sweat.

26. (Previously Presented) The method according to claim 22, wherein the mammalian expression vector contains a promoter that facilitates increased

expression of the PCR product.

27. (Currently Amended) The method according to claim 22, wherein the suitable host cell lacks expression of **Class I** MHC molecules.

28. (Currently Amended) A method for the production of soluble **Class I** MHC complexes in a cell pharm having an appropriate growth media therein, comprising the steps of:

-- obtaining gDNA from a sample wherein a portion of the gDNA encodes a desired individual **Class I** MHC heavy chain molecule;

-- isolating mRNA from the gDNA and reverse transcribing the mRNA to obtain cDNA, wherein the cDNA contains cDNA encoding the desired **Class I** MHC heavy chain molecule;

-- creating a PCR product encoding a soluble form of the desired **Class I** MHC heavy chain molecule by PCR amplification of the cDNA encoding the desired **Class I** MHC heavy chain molecule, wherein the amplification utilizes at least one locus-specific primer and results in a PCR product that does not encode the cytoplasmic and transmembrane domains of the desired **Class I** MHC heavy chain molecule, thereby producing a PCR product that encodes a soluble **Class I** MHC heavy chain molecule;

-- inserting the PCR product into a mammalian expression vector to form a plasmid containing the PCR product;

-- electroporating the plasmid containing the PCR product into at least one suitable host cell; and

-- inoculating the cell pharm with the at least one suitable host cell containing the plasmid such that the cell pharm produces soluble **Class I** MHC complexes having the desired **Class I** MHC heavy chain molecule associated with ~~native~~ beta-2-microglobulin and loaded with endogenously produced peptides**, wherein the beta-2-microglobulin is native to and endogenously produced in the host cell**.

29. (Currently Amended) The method according to claim 28, further comprising the step of harvesting the soluble **Class I** MHC complexes from the cell pharm.

30. (Currently Amended) The method according to claim 28, wherein the soluble **Class I** MHC complexes are Class I HLA molecules ~~or Class II HLA molecules~~.

31. (Previously Presented) The method according to claim 28, wherein the gDNA is obtained from blood, saliva, hair, semen, or sweat.

32. (Currently Amended) The method according to claim 28, wherein the locus-specific primer includes a sequence encoding a tail such that the soluble **Class I** MHC heavy chain molecule encoded by the PCR product contains a tail attached thereto that facilitates in purification of the soluble **Class I** MHC complexes produced therefrom.

33. (Previously Presented) The method according to claim 28, wherein the mammalian expression vector contains a promoter that facilitates increased expression of the PCR product.

34. (Currently Amended) The method according to claim 28, wherein the suitable host cell lacks expression of **Class I** MHC molecules.

35. (Currently Amended) A method for the production of soluble **Class I** MHC complexes in a cell pharm having an appropriate growth media therein, comprising the steps of:

-- obtaining gDNA from a sample, wherein a portion of the gDNA encodes a desired individual **Class I** MHC heavy chain molecule;

-- isolating mRNA from the gDNA and reverse transcribing the mRNA to obtain cDNA, wherein the mRNA contains mRNA for the desired **Class I** MHC heavy chain allele and thus the cDNA contains cDNA encoding for a desired **Class I** MHC heavy chain molecule;

-- creating a PCR product encoding a soluble form of the desired **Class I** MHC heavy molecule by PCR amplification of the cDNA encoding the desired **Class I** MHC heavy chain molecule, wherein the amplification utilizes at least one locus-specific primer and results in a PCR product that does not encode the cytoplasmic and transmembrane domains of the desired **Class I** MHC heavy chain molecule, thereby producing a PCR product that encodes the soluble **Class I** MHC heavy chain molecule;

-- inserting the PCR product into a mammalian expression vector to form a plasmid containing the PCR product encoding the soluble **Class I** MHC heavy chain molecule;

-- electroporating the plasmid containing the PCR product into at least one suitable host cell; and

-- inoculating the cell pharm with the at least one suitable host cell containing the plasmid such that the cell pharm produces soluble **Class I** MHC complexes having the desired **Class I** MHC heavy chain molecule associated with ~~native~~ beta-2-microglobulin and

loaded with endogenously produced peptides, **wherein the beta-2-microglobulin is native to and endogenously expressed in the host cell, and** wherein the soluble **Class I** MHC complexes are folded naturally and are trafficked through the host cell in such a way that they are identical in functional properties to ~~an~~ **a Class I** MHC complex expressed from the **Class I** MHC heavy chain allele mRNA and thereby bind peptide ligands in an identical manner as full-length, cell-surface-expressed **Class I** MHC complexes.

36. (Currently Amended) The method according to claim 35, further comprising the step of harvesting the soluble **Class I** MHC complexes from the cell pharm.

37. (Currently Amended) The method according to claim 35, wherein the soluble **Class I** MHC complexes are Class I HLA molecules ~~or Class II HLA molecules~~.

38. (Previously Presented) The method according to claim 35, wherein the gDNA is obtained from blood, saliva, hair, semen, or sweat.

39. (Previously Presented) The method according to claim 35, wherein the at least one locus-specific primer is a 3' primer having a stop codon incorporated therein.

40. (Currently Amended) The method according to claim 35 wherein the locus-specific primer includes a sequence encoding a tail such that the soluble **Class I** MHC heavy chain molecule encoded by the PCR product contains a tail attached thereto that facilitates in purification of the soluble **Class I** MHC complexes produced therefrom.

41. (Previously Presented) The method according to claim 35 wherein the mammalian expression vector contains a promoter that facilitates increased expression of the PCR product.

42. (Currently Amended) The method according to claim 35 wherein the suitable host cell lacks expression of **Class I** MHC complexes.

43-44. (Canceled)